

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (Previously presented) A system for transmitting data stored in at least one database and processed by a server arrangement to at least one wireless device that receives data from a wireless carrier network, the system comprising:

a relay arrangement for routing the data to the wireless carrier network for transmission over the wireless carrier network to the at least one wireless device; and

a firewall arrangement that provides security for the data, the server arrangement and the relay arrangement;

wherein the relay arrangement is arranged behind the firewall arrangement and is configured to push the data from behind the firewall arrangement to the at least one wireless device such that the data is not transmitted until the at least one wireless device can receive the data.

2. (Original) The system of claim 1, wherein the data includes at least one of e-mail data and PIM data.

3. (Previously Presented) The system of claim 1, wherein the at least one wireless device receives encryption data wirelessly.

4. (Original) The system of claim 1, wherein the database includes at least one of an e-mail server and a database server.

5. (Original) The system of claim 1, further comprising:

a redundant server arrangement for the server arrangement.

6. (Original) The system of claim 1, further comprising:

a redundant relay arrangement for the relay arrangement.

7. (Original) The system of claim 5, wherein the redundant server arrangement is located in at least one of a same geographic location and a different geographic location than the server arrangement.

8. (Original) The system of claim 6, wherein the redundant relay arrangement is located in at least one of a same geographic location and a different geographic location than the relay arrangement.

9. (Original) The system of claim 1, wherein the data is encrypted.

10. (Currently Amended) A method for transmitting data, comprising:

retrieving data via a server arrangement;

processing the data in the server arrangement;

sending the data to a relay arrangement;

processing the data in the relay arrangement arranged behind a firewall arrangement;

routing the data to [[the]] at least one wireless carrier network for transmission to at least one wireless device, the data being pushed from the relay arrangement from behind the firewall arrangement to the at least one wireless device such that the data is not transmitted until the at least one wireless device can receive the data, the firewall arrangement providing security for the data, the server arrangement and the relay arrangement;

receiving the data at the at least one wireless carrier network;

processing the data in the at least one wireless carrier network;

sending the data to the at least one wireless device;

receiving the data at the at least one wireless device; and

processing the data in the at least one wireless device.

11. (Previously Presented) The method of claim 10, wherein the data includes at least one of e-mail data and PIM data.

12. (Previously Presented) The method of claim 10, further comprising:

sending encryption data to the wireless device via a wireless connection, thus updating operational capabilities of the wireless device.

13. (Previously Presented) The method of claim 10, wherein the data is encrypted.

14. (Previously Presented) An apparatus for transmitting data, comprising:

means for processing data;

means for pushing the data directly to a wireless carrier network;

means for securing the data, the means for processing and the means for pushing; and

at least one wireless device that receives data from over the wireless carrier network;

wherein the means for pushing is arranged behind the means for securing, and

wherein the means for pushing is configured to push the data such that the data is not transmitted until the at least one wireless device can receive the data.

15. (Currently Amended) A system for transmitting data stored in at least one database and processed by a server arrangement to at least one wireless device that receives data from a wireless carrier network, comprising:

a relay arrangement for [[for]] routing the data to the wireless carrier network for transmission to the at least one wireless device, the relay arrangement being arranged within a controlled network and being configured to push the data from behind a firewall arrangement within the controlled network to the at least one wireless device such that the data is not transmitted until the at least one wireless device can receive the data.

16. (Previously Presented) The system of claim 1, wherein the firewall arrangement includes an enterprise firewall arrangement.

17. (Previously Presented) The system of claim 1, wherein the relay arrangement is configured to route the data via a private connection.

18. (Previously Presented) The system of claim 1, wherein the relay arrangement is configured to route the data via a frame relay connection.

19. (Previously Presented) The system of claim 1, further comprising an enterprise monitoring element to monitor the relay arrangement.

20. (Previously Presented) The method of claim 10, further comprising:

monitoring the relay arrangement including the routing of the data from the relay arrangement.

21. (Previously Presented) The apparatus of claim 14, further comprising means for monitoring the means for routing.

22. (Previously Presented) The system of claim 1, wherein the relay arrangement includes at least two parts, at least one of which shares a common hardware platform with the server arrangement.

23. (Previously Presented) The system of claim 15, wherein the relay arrangement is configured to route the data over the wireless carrier network.

24. (Previously presented) An apparatus to route data for transmission over a wireless carrier network, comprising:

a first arrangement to relay data stored in at least one database and processed by a server arrangement directly to a wireless carrier network for transmission to at least one wireless device, the first arrangement configured to be arranged behind a firewall arrangement that provides security for the data, the server arrangement and the first arrangement,

wherein the first arrangement is configured to push the data from behind the firewall arrangement to the at least one wireless device such that the data is not stored outside the firewall arrangement while enroute to the wireless carrier network.

25. (Previously Presented) The apparatus of claim 24, wherein the first arrangement is configured to transmit the data to a particular one of the at least one wireless device only when the particular wireless device is available to receive the data.

26. (Previously Presented) A system for transmitting data stored in at least one database to at least one wireless device, comprising:

a relay arrangement to route the data directly to a wireless carrier network for transmission over the wireless carrier network, the relay arrangement configured to communicate with the at least one wireless device via a firewall arrangement that provides security for the data and the relay arrangement,

wherein the relay arrangement is configured to push the data from behind the firewall arrangement to the at least one wireless device such that the data is not stored outside of the firewall arrangement while enroute to the wireless carrier network.

27. (Previously Presented) The method of claim 10, wherein the data is sent through the firewall arrangement only when the at least one wireless carrier network is in service and the at least one wireless device is available to receive the data.

28. (Previously Presented) The system of claim 1, wherein the relay arrangement is configured to route the data over an air interface.

29. (Previously Presented) The system of claim 1, wherein the relay arrangement is configured to route the data via an RF-based communications methodology.

30. (Previously Presented) The apparatus of claim 14, wherein the means for processing and the means for routing share a common hardware platform.

31. (Previously Presented) The system of claim 1, wherein the relay arrangement is configured to transmit the data over the wireless carrier network when the at least one wireless device is available to receive the data.

32. (Previously Presented) The system of claim 31, wherein the relay arrangement is configured to store the data if the at least one wireless device is not available to receive the data.

33. (Previously Presented) The system of claim 1, wherein the data includes e-mail data.

34. (Previously Presented) The system of claim 1, wherein the relay arrangement is configured to provide transport layer services.

35. (Previously Presented) The system of claim 34, wherein the transport layer services include end-to-end acknowledgement of the transmission of the data to the at least one handheld wireless device.

36. (Previously Presented) The system of claim 1, wherein the relay arrangement is configured to be under exclusive control of a single enterprise.

37. (Previously Presented) The system of claim 1, wherein the relay arrangement is configured to be a non-shared resource with respect to other enterprises.

38. (Previously Presented) The system of claim 1, wherein the data is transmitted directly over the wireless carrier network without being transmitted through the Internet.

39. (Previously Presented) The system of claim 1, wherein the relay arrangement is configured to communicate with the wireless carrier network.

40. (Previously Presented) The system of claim 39, wherein the relay arrangement is configured to convert the data according to a data packet protocol.

41. (Previously Presented) The system of claim 1, wherein the relay arrangement is configured to provide the data to a plurality of device types over a plurality of wireless carrier network types.
42. (Previously Presented) The system of claim 41, wherein at least two of the plurality of wireless carrier network types operate according to different transmission protocols.
43. (Previously Presented) The system of claim 1, wherein the data is routed directly to the wireless carrier network via the Internet.
44. (Previously Presented) The method of claim 10, wherein the data is routed directly to the at least one wireless carrier network via the Internet.
45. (Previously Presented) The apparatus of claim 14, wherein the data is routed directly to the wireless carrier network via the Internet.
46. (Previously Presented) The system of claim 15, wherein the data is routed directly to the wireless carrier network via the Internet.
47. (Previously Presented) The apparatus of claim 24, wherein the data is relayed directly to the wireless carrier network via the Internet.
48. (Previously Presented) The system of claim 26, wherein the data is routed directly to the wireless carrier network via the Internet.
49. (Previously Presented) The system of claim 1, wherein the wireless carrier network is a public carrier network.
50. (Previously Presented) The method of claim 10, wherein the wireless carrier network is a public carrier network.
51. (Previously Presented) The apparatus of claim 14, wherein the wireless carrier network is a public carrier network.

52. (Previously Presented) The system of claim 15, wherein the wireless carrier network is a public carrier network.

53. (Previously Presented) The apparatus of claim 24, wherein the wireless carrier network is a public carrier network.

54. (Previously Presented) The system of claim 26, wherein the wireless carrier network is a public carrier network.

55. (Currently Amended) A system for transmitting data processed by a server arrangement to at least one wireless device that receives data from a wireless network, the system comprising:

a relay arrangement for routing the data to the wireless network for transmission over the wireless [[carrier]] network to the at least one wireless device; and

a firewall arrangement that provides security for the data, the server arrangement and the relay arrangement;

wherein the relay arrangement is situated behind the firewall arrangement and is configured to push the data to the at least one wireless device such that the data is not stored outside of the firewall arrangement while enroute to the wireless network.

56. (Previously Presented) The system of claim 55, wherein the data is routed directly to the wireless network via the Internet.

57. (Previously Presented) The system of claim 55, wherein the data is routed directly to the wireless network via a dedicated connection.

58. (Previously Presented) The system of claim 57, wherein the dedicated connection includes a T1 connection.

59. (Previously Presented) The system of claim 57, wherein the dedicated connection includes a frame relay connection.

60. (Previously Presented) The system of claim 55, wherein the relay arrangement is configured to operate with more than one wireless network.

61. (Currently Amended) The system of claim 55, wherein the relay arrangement encodes the data, ~~and pushes the data from behind the firewall arrangement to the at least one wireless device such that the data is not stored outside of the firewall arrangement while enroute to the wireless network.~~

62. (Previously Presented) The system of claim 55, wherein the relay arrangement is configured to push the data such that intermediate processing of the data does not occur enroute to the wireless network.

63. (Previously Presented) The system of claim 55, wherein the relay arrangement is configured to push the data such that the data is not transmitted until a connection is established between the relay arrangement and the at least one wireless device, and the at least one wireless device can receive the data.

64. (Previously Presented) The system of claim 63, wherein the data is not transmitted until the at least one wireless device is "on", is within a service coverage area, and is logged onto the at least one wireless network.

65. (Previously Presented) The system of claim 63, wherein the connection is a synchronous connection.

66. (Previously Presented) The system of claim 63, wherein the connection is a secure connection.

67. (Previously Presented) The system of claim 63, wherein the connection is established using a data packet protocol.

68. (Previously Presented) The system of claim 63, wherein the connection is established using an Internet protocol.

69. (Previously Presented) The system of claim 55, wherein the data includes enterprise data.

70. (Previously Presented) The system of claim 55, wherein the relay arrangement is co-located on the same physical device.

71. (Currently Amended) An apparatus for transmitting data, comprising:

an arrangement for relaying data to a wireless carrier network such that the data is not ~~transmitted~~ pushed beyond an arrangement to secure the data until at least one wireless device that receives data from over the wireless carrier network can receive the data.

72. (Previously Presented) The apparatus of claim 71, wherein the arrangement for relaying data is configured to encode the data.

73. (Previously Presented) The system of claim 1, wherein the relay arrangement encodes the data.

74. (Previously Presented) The method of claim 10, further comprising:

encoding the data prior to routing the data to the at least one wireless carrier network.

75. (Previously Presented) The system of claim 15, wherein the relay arrangement encodes the data.

76. (Previously Presented) The system of claim 1, wherein the at least one wireless device includes a handheld wireless device.

77. (Previously Presented) The method of claim 10, wherein the at least one wireless device includes a handheld wireless device.

78. (Previously Presented) The system of claim 15, wherein the at least one wireless device includes a handheld wireless device.

79. (Previously Presented) The apparatus of claim 24, wherein the at least one wireless device includes a handheld wireless device.

80. (Previously Presented) The system of claim 26, wherein the at least one wireless device includes a handheld wireless device.